Original Article
ISSN (Online): 2582-7472

ShodhKosh: Journal of Visual and Performing Arts
July 2024 5(7SE), 128–132

"EFFECT OF JUDO KATA TRAINING ON BALANCE OF JUDO PLAYERS AGED 17 TO 19 YEARS BOYS"

Rajkumar C. Gupta [1], Dr. Sayyed Asma Pravin [2]

[1] Ph.D. Scholar, M.S.M. College of Physical Education, Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Smabhaji Nagar, Maharashtra, India
[2] Research Guide, Asstant Professor, Lokseva Education Society's Arts and Science College, Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Smabhaji Nagar, Maharashtra, India

https://crossmark.crossref.org/dialog/?doi=10.29121/shodhkosh.v5.i7se.2024.5860&domain=pdf&date_stamp=2024-07-31

DOI
10.29121/shodhkosh.v5.i7SE.2024.5860

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

This study investigates the effect of Judo Kata training on the balance of college students aged 17 to 19. A total of 70 male students from Prakash College, Kandivali (W), were divided into two groups: an experimental group and a control group, each consisting of 35 participants. Using a pre-test and post-test non-equivalent control group design, the experimental group underwent Training focused on Judo Kata for 16 weeks, while the control group received no such training. Balance was measured using the Stork Stand test, with data analyzed using One Way ANCOVA.

The results indicated a significant difference in the adjusted mean scores of balances between the experimental group (mean = 6.694) and the control group (mean = 6.106), with an F-value of 9.545 which is significant at 0.05 level. This suggests that Judo Kata training effectively improves balance among judo players. Consequently, the null hypothesis—stating no significant difference in balance between the two groups—was rejected. The findings highlight the importance of Judo Kata training in enhancing balance, contributing to the holistic development of judo players.

1. INTRODUCTION

Physical activity is essential for students' health and academic success. Physical education (PE) offers numerous benefits, including improved physical and mental well-being, enhanced social skills, increased self-esteem, and character development. PE teachers create age-appropriate activities that strengthen motor skills, muscle strength, and bone density, promoting lifelong healthy habits. Additionally, PE combats obesity, reduces chronic disease risks, and supports mental wellness, teamwork, and social interaction, contributing to students' overall development. It also enhances sleep quality, reduces stress, and encourages balanced diets, all vital for a healthier lifestyle. The advantages of PE extend into the classroom, positively affecting behavior, attention, and academic performance.

Judo, known as "the gentle way," is a modern martial art that focuses on competitive techniques. Practitioners, or judoka, engage in throwing opponents, immobilizing them, or grappling. Strikes are limited to pre-arranged forms (kata)

and are not allowed in competitions or free practice (randori). Judo principles have greatly influenced modern Japanese martial arts.

Kata, a vital training technique in judo, consists of specialized movements designed for self-defense. Founded by Jigoro Kano, kata illustrates essential concepts and provides a controlled environment for practicing techniques. It encourages practitioners to think creatively beyond randori, allowing exploration of various scenarios, including strikes and self-defense situations.

Kata pushes martial artists to think outside traditional training methods, making it crucial for holistic martial arts education. High levels of coordination and motor fitness are essential for athletes, enhancing performance across all sports.

To promote children's holistic development—mental, physical, social, and spiritual—regular physical activity is vital. Well-structured college PE programs are essential for fostering this growth. Physical activity has long been associated with well-being, leisure, and vitality, contributing to both basic survival and excellence.

Today, many people engage in sports, directly or indirectly. Regular exercise improves oxygen efficiency and lowers resting heart rates, enhancing metabolic processes critical for sustained energy production. An individual's fitness level determines their ability to perform optimally and adapt to changing conditions.

Motor fitness is particularly important in high-performance sports like judo, where athletes must excel under mental and physical pressure. Judo requires high-intensity motor activity across diverse challenges, with skills such as explosive leg power, balance, and coordination being crucial for success.

Motor fitness encompasses qualities like agility, coordination, balance, power, and reaction time. Training these attributes leads to improved motor fitness, essential for peak performance. These qualities are foundational for athletes, ensuring endurance, quick recovery, and mastery of high-intensity activities.

Balance involves stabilizing the body, whether stationary or in motion. Balance exercises include activities like ice skating, skiing, and biking. Static balance means maintaining an upright position while still, while dynamic balance involves stability during movement. Balance requires coordinating movements to manage the center of mass (COM) within the base of support (BOS), integrating sensory inputs.

This research aims to investigate the effect of Judo Kata training on the balance of college students aged 17 to 19, focusing on the topic: “The Effect of Judo Kata Training on the Balance of Judo Players.”

2. PURPOSE OF THE STUDY

- To compare the adjusted Mean Scores of Balance of Judo Players of Experimental Group and Control Group by taking Pre Balance as Covariate.

3. HYPOTHESIS OF THE STUDY

- **H01:** There is no significant difference in the adjusted Mean Scores of Balance of Judo Players of Experimental Group and Control Group by taking Pre Balance as Covariate.

4. METHODOLOGY

4.1. SELECTION OF SAMPLE

A sample of sixty (n=70) male students of aging 17 to 19 years were identified as subjects from Prakash College, Kandivali (W).

5. RESEARCH DESIGN: (NON-EQUIVALENT CONTROL GROUP DESIGN)

The experimental design consist of three phases: Phase I: Pre-test, Phase II: Training or Treatment, and Phase III: Post-test. The subjects were divided into two groups: one is Experimental Group and another is Control Group, with each group comprising 35 participants. The experimental group received Judo Kata Training five days a week for a total of 16 weeks.

5.1. DEPENDENT VARIABLE:

Balance

5.2. INDEPENDENT VARIABLE:

The Specific Judo Kata training was treated as the independent variable in this study.

5.3. TOOLS/ INSTRUMENTS

The following criterion measure was included to record the reading of Balance.

Table 1

Variable	Test	Unit
Balance	Stork stands test	Time

5.4. TRAINING SCHEDULE

The following training schedule has followed.

Table 2

PARTICULARS	DURATION
Warming Up	10 minutes
Judo Kata Training	40 minutes
Cooling down	10 minutes
Total	60 minutes

The Following Specific Judo Kata Training has given for 16-week training.

Table 3

Sr. No	Nage No Kata (Forms of Throwing)	
1.	Te Waza (Hand Techniques)	1) Uki Otoshi (Floating Drop) 2) Seoi Nage (Shoulder Throw) 3) Kata Guruma (Shoulder Wheel)
2.	Koshi Waza (Hip Techniques)	1) Uki Goshi (Floating Hip) 2) Harai Goshi (Sweeping Hip) 3) Tsuri Komi Goshi (Liftibng Pulling Hip)
3.	Ashi Waza (Foot Techniques)	1) Okuri Ashi Harai (Double Foot Sweep) 2) Sasae Tsuri Komi Ashi (Lifting Pulling Foot Block) 3) Uchi Mata (Inner Thigh Throw)
4.	Ma Sutemi Waza (Rear Sacrifice Techniques)	1) Tomoe Nage (Stomach or Circle Throw) 2) Ura Nage (Back Throw) 3) Sumi Gaeshi (Corner Throw)
5.	Yoko Sutemi Waza (Side Sacrifice Techniques)	1) Yoko Gake (Side Hook) 2) Yoko Guruma (Side Wheel) 3) Uki Waza (Floating Throw)

5.5. STATISTICS

Comparison of group was done with the help of One-Way Analysis of Covariance (One Way ANCOVA).

6. RESULTS AND DISCUSSION

Treatment Wise Comparison of Adjusted Mean Scores of Balances by Taking Pre Balance as Covariate of Judo Players of Experimental Group and Control Group

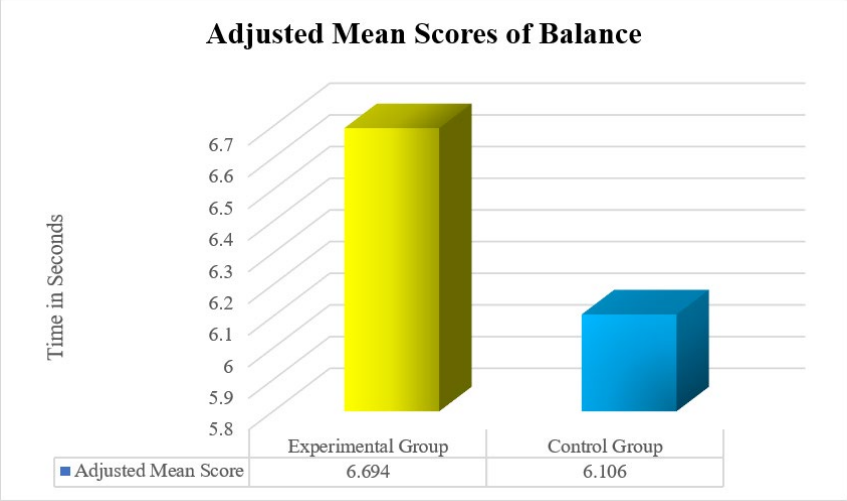
The first objective was to compare adjusted mean scores of Balances of judo players of experimental group and Control Group by taking Pre Balance as Covariate. The data were analyzed with the help of One Way ANCOVA and results are given in Table 4.

Table 4 Summary of One Way ANCOVA of Balance by taking Pre Balance as Covariate

Source of Variance	df	SSy.x	MSSy.x	Fy.x	Remark
Treatment	1	5.904	5.904		
Error	67	41.442	.619	9.545	P < 0.05
Total	69				

From Table 4 The adjusted F-value is 9.545 which is significant at 0.05 level with df=1/67 when Pre Balance was taken as covariate. It shows that adjusted mean scores of Balances of judo players of experimental group and control group differ significantly when Pre Balance was take as covariate. Thus, the Null Hypothesis that there is no significant difference in the adjusted mean scores of Balances of judo players of experimental group and control group by taking Pre Balance as Covariate is rejected. Further the adjusted mean score of Balance of Judo players of experimental group is 6.694 this is significantly higher than that of Control Group where adjusted mean score of Balance is 6.106. It may, therefore, said that Judo Kata Training was found to be effective in improving Balance of judo players of Experimental group than Control Group where Pre Balance was taken as covariate.

Figure 1 Comparison of Adjusted Mean Scores of Balances between Experimental Group and Control Group



7. CONCLUSION

The results of this study indicate that Judo Kata training significantly enhances the balance of judo players in the experimental group. The findings suggest that the structured training regimen effectively contributes to improved balance skills, which are crucial for optimal performance in judo.

This improvement in balance can be attributed to the specific movements and techniques practiced during Judo Kata, which emphasize coordination, body awareness, and stability. By engaging in this focused training, participants

were able to develop greater control over their body mechanics, leading to enhanced performance in both competitive and practice settings.

Overall, the study underscores the importance of incorporating Judo Kata training into physical education programs for judo players. Such training not only benefits balance but also supports the development of other essential skills, contributing to the holistic growth of athletes.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

The investigators would like to express their gratitude to the students who generously participated in this study. We also extend our thanks to the college authorities for granting permission to conduct this experiment.

REFERENCES

Grosu, V. T., Florian, T., Ciufudean, E., & Grosu, E. F. (2015). Attention and emotional distress in junior athletes practicing judo and alpine skiing. Palestrica of the third millennium – Civilization and Sport, 338 - 341.

Jaworsk, J., Lech, G., Ambroży, T., & Żak, M. (2020). Profile of coordination motor abilities in elite judokas and badminton players compared to non-athletes. Biomedical Human Kinetics, 17 - 24.

Jungman, M., & Wilson, J. R. (2016). Physiological Characteristics of Brazilian Jiu Jitsu and Judo as Compared To Muay Thai. sports and exercise medicine open journal, 7 - 12.

Kowalczyk, M., Zgorzalewicz-Stachowiak, M., Błach, W., & Kostrzewa, M. (2022). Principles of Judo Training as an Organised Form of Physical Activity for Children. International Journal of Enviromental Research and Public Health.

L, Z., H, M., A, A., Gaidi.A, & K, A. (2019). Impact of coordination training on the development of speed among young judokas from 10 to 12 years old. Pedagogics Psychology medical- biological problems of physical training and sports, 325 - 329.

Liliana, M., & Sava, A. (2013). The Role of Attention in the Achievement of Sport Performance in Judo. Procedia - Social and Behavioral Sciences.

Lo, W. L., Liang, Z., Li, W., Luo, S., Zou, Z., Chen, S., & Yu, Q. (2019). The Effect of Judo Training on Set-Shifting in School Children. BioMed Research International.

Tukel, Y., Sanioglu, A., Taskin, H., Stoffregen, T. A., & Erkmen, N. (2017). Qualitative assessment of balance performance among judo players with visual impairment. Ido Movement For Culture, 32-36.